



Finding the lost treasure: A literature review of defining and identifying gifted and talented children in early childhood settings in Aotearoa New Zealand

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Abstract: This literature review is intended to explore the definitions and identifications of gifted and talented children, particularly in the area of early childhood settings in Aotearoa New Zealand. Gifted and talented education has been recognised by the New Zealand Government and society over the last few decades. Governments have attempted to put in place a variety of strategies to support gifted and talented children and their education. However, gifted and talented children in early childhood settings are still often overlooked by society. *Te Whāriki*, the New Zealand early childhood curriculum, is designed to be inclusive of all children. This curriculum has been implemented by most early childhood settings in Aotearoa New Zealand. The basic principles of equity and fairness espoused in *Te Whāriki* should dictate that gifted and talented children be identified, so that their special learning needs can be met.

Key Words: Gifted and talented, early childhood education

Introduction

The aim of this article is to critically review the literature of defining and identifying gifted and talented children in early childhood settings. In order to support gifted and talented children, I consider that teachers should first appreciate how gifted education has developed in Aotearoa New Zealand. This would include an awareness of how society's attitudes have changed in terms of providing for these children. This country has evidently begun to develop its recognition of gifted education in primary and secondary schools, although as we will see, there is still a way to go in early childhood education settings.

Next, a variety of definitions and concepts based on theories and literature will be discussed. In recent gifted education policies (Ministry of Education, 2001, 2012), the New Zealand Government acknowledges that, like other students, gifted and talented children need appropriate educational opportunities. However, while these two policies are laudable statements of principle, in practice, gifted and talented education in early childhood settings is still overlooked by the Government and by society. But young gifted and talented children cannot be neglected; their special learning needs are still around, and early childhood teachers still have to be responsive to the needs of these children. After teachers have gained a basic understanding of what is meant by the concept of giftedness and being talented, they can learn how to identify these children. This literature review will provide a discussion of

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different criteria used to identify gifted and talented students, and in particular, young children. The ultimate goal of this discussion, of course, is that teachers will be able to use this knowledge to plan and provide for the individual learning needs of gifted and talented children in early childhood settings.

History of Gifted Education in Aotearoa New Zealand

In early New Zealand, many children, especially those whose lived in rural areas, did not attend school. Then in 1877, the Government passed the Education Act, which made it compulsory for all children between the ages of 5 and 15 to attend primary school (Rata & Sullivan, 2009). This legislation, with its subsequent reform of the New Zealand education system, brought about remarkable change to many children's lives. Indeed, this Act has been internationally recognised because many aspects of our education system were groundbreaking. However, the 1877 Education Act did not provide for gifted and talented children. In 1948, George Parkyn published a book (Parkyn, 1948) based on his research on gifted and talented children; prior to this, there was little reference to this area. During the 1950s, the Department of Education required that gifted and talented students have their needs met by enrichment activities provided within regular classroom programmes (Knudson, 2006). Gradually, there was more research on gifted and talented children and the Government began to put more focus on these students. The New Zealand Association for Gifted Children (NZAGC) was established in 1975/76 with the goal "to promote the needs of gifted kids at national level and support and foster initiatives at local level which meet those needs" (The Gifted Education Centre, n.d.).

From the last two decades to now...

In 1997, the Ministry of Education launched its Advisory Group on Gifted Education. The role of this group was to advise the Ministry of Education on initiatives for gifted and talented students. The first gifted education policy was released in 2001; only three out of the nine principles in this policy mentioned early childhood education (Ministry of Education, 2001). In August 2012, a revised gifted education policy was published by the Ministry of Education (Ministry of Education, 2012). In the 12 years between the two policies, the Ministry of Education had instigated a number of initiatives (Wong & Hansen, 2012). One of the remarkable achievements was the introduction of the web site *TeKeteIpurangi (TKI)*, a site developed to assist teachers and parents in supporting the learning and development of gifted and talented students at all ages. Advisory and support groups were also formed to provide suggestions to the Government on supporting these students. At the same time, research on gifted education has continued to grow, and universities now offer qualifications majors in gifted education. Overall, there has been significant improvement in gifted education in Aotearoa New Zealand – except in early childhood settings.

Unfortunately, the needs of gifted children in early childhood education are still being overlooked (Wong & Hansen, 2012). Yet, these younger gifted children share many of the same issues as gifted children in primary schools. Gifted children in early childhood settings may also experience some additional challenges in their learning environment, and this has been largely ignored by society. The Ministry of Education's two policies had a huge influence on gifted education and on the stakeholders – the whānau, early childhood teachers,



teacher education providers, support agencies, and mainly on the gifted and talented children in early childhood settings – but there is more to be done.

Defining Giftedness

The definitions of giftedness are numerous. Several express the diversity of approaches towards gifted education, reflecting the variety of interest groups that have developed the different definitions. These definitions are often based on research results, and different governments' involvement in gifted education; they are also a reflection of how giftedness is valued by society.

Until now, no literature on gifted education and/or brain research has come up with a single agreed-upon definition of giftedness. Rather, the definitions of giftedness are dynamic, i.e. they change over time (McAlpine, 2004). In the twentieth century, and especially during the 1940s to 1960s, the concept of giftedness was almost invariably defined by Intelligence Quotient (IQ). If the child achieved a score that was one or more standard deviations greater than the accepted mean IQ of 100, they were likely to be labelled as gifted (Moltzen, 2004). Likewise, in Parkyn's first research publication (Parkyn, 1948), he mainly considered giftedness within the area of cognitive abilities.

In this millennium, however, people tend to perceive giftedness as much more than merely having advanced ability in certain areas. Gardner (1983) suggested that children have unique ways of thinking; giftedness, therefore, should not be restricted to within the academic areas. Gardner's theory of multiple intelligences argues that there is a wide range of cognitive abilities. He also argues that learning is not necessarily satisfied by a core curriculum based on linguistic or logical-mathematical programmes. Other common definitions of giftedness focus on the child being advanced of his or her chronological age in some area(s) (Porter, 2004), and/or the child being able to meet their developmental milestones sooner than other children (McAlpine, 2004). Gagné (2004) explained in the Differentiated Model of Giftedness and Talent (DMGT) that gifted students are those who have outstanding innate ability in one or more of the following domains: intellectual, creative, social and physical. Such outstanding abilities are not necessarily in academic areas, but these are shown at least among the top 10% of age peers.

My personal view of giftedness is that a gifted child has special inner abilities; he or she can potentially be extremely good at something. I also believe that any definition of giftedness must be related to the child's peer group, because what defines "exceptional" abilities will depend upon the skills of those against whom one is judged and compared. This belief is consistent with one of the definitions of giftedness from *Nurturing Gifted and Talented Children* (Ministry of Education, 2008), which stated that "being gifted means being exceptional in one or more areas compared to other people of a similar age" (p. 12). In an early childhood setting, teachers need to notice the abilities of a gifted child within the context of their peer group; only then can teachers recognise the differences between the gifted child and the others. Also, there is no rule that says that giftedness only belongs to a certain group of people. As the Ministry of Education (2008) states, giftedness can be found in diverse communities: gifted children come from different socio-economic backgrounds as well as from a variety of ethnicities. Over the last decade, there has been more research in Aotearoa New Zealand involving support of these children from different cultural



backgrounds, as well as from diverse socio-economic groups. It is positive that giftedness is being recognised in different groups of people.

A label of “gifted”

Not all early childhood teachers like the idea of “labelling” a child as gifted; they tend to assert that every child is “the same” and/or that “all children are gifted”. Maybe they believe that by saying every child is the same, this will reduce comparisons and competition among children and parents. Or maybe they genuinely believe that every child is gifted. And if this is so, then do we need a label of “gifted” in order to support the notions of *Te Whāriki* and *Kei Tua o te Pae/Assessment for Learning: Early Childhood Exemplars*, as well as those of a number of early childhood education researchers, that suggest that teachers should focus on the individual differences? I would suggest that if teachers say that all children are the same, then they are not focusing on individual differences. As Beresford (2008) explains, we cannot say all children have Attention Deficit Hyperactivity Disorder (ADHD) because they do not. Nevertheless, for me, whether you have a name or label for a child with exceptional ability is not really an issue – the giftedness and potentials are still there. If a child is gifted, their abilities will not go away. The fact that exists cannot be ignored – and their individual needs have to be met.

Strengths versus giftedness

It is understandable that parents think their children are smart; many parents are offended if people do not say their bright child is gifted, because they are providing the best for their child. I argue that every child has strengths, and there is no doubt that some children can do things better and more quickly than others. But these are strengths, not giftedness. Giftedness is an inner exceptional ability, and strengths can be developed.

Characteristics of Giftedness

To support children’s learning and development, early childhood teachers need to know their children, accept who they are, and acknowledge their needs. And gifted children not only have outstanding abilities, they also have special learning needs. Yet before the teacher can acknowledge the needs of the gifted child, they must know the child is gifted. Thus, characteristics of giftedness have to be mentioned in any article on gifted education. However, this article is not going to list different characteristics of giftedness from the literature because I believe that every gifted child is different. Their characteristics are commonly based on their personalities and upbringing from parents, as well as on their cultural background. Instead, a concise discussion is offered in this section. The paper *Signs of giftedness in early childhood – how to cater for gifted children in ECC* (Breen, 2008) suggested a list of characteristics of giftedness; many of them are optimistic, such as these children learn easily, have excellent memory and are detailed observers. Early childhood teachers should have a sound understanding of these children, otherwise some characteristics could be a challenge; for example, these children can be quickly bored with simple and repetitive games, and they also prefer the company of adults. Some gifted children are sensitive, they get emotionally hurt easily, and some are intense as they are perfectionists (Ministry of Education, 2008).



Gifted with Learning Disabilities

People used to define giftedness in terms of having excellent abilities within cognitive areas of learning and development but research findings in recent years have broadened our understanding of gifted and talented people. The Ministry of Education (2008) stated “giftedness can be found ... among people who have physical, sensory, and learning disabilities (p. 12).” Now society is beginning to understand that someone can be gifted and also having learning disabilities; the term for such a person is *twice-exceptional*.

In the Ministry’s revised gifted education policy (Ministry of Education, 2012), a core principle states “provisions for gifted and talented learners, including the twice-exceptional, recognise and respond to their specific abilities and qualities, which may be social, emotional, cultural, creative, cognitive, physical, and/or spiritual” (p. 10). Being twice-exceptional means a student is both gifted and has learning difficulties. These students have characteristics from both of the extreme ends of the population, i.e. they are in both the top 10% and the lowest 10% of abilities compared with students of a similar age. The situation with learning disabilities is complex; the extent to which a person is affected can vary day to day, depending on circumstances (Carson, personal communication, January, 2013). In general, these students suffer from an auditory-processing problem, visual-perception problem or attention deficit disorder, or they may display difficulty in following a sequence of verbal directions (Vaidya, 1993). These learning disabilities may impact on gifted students’ daily lives and academic achievements. It may not be easy to notice those twice-exceptional children in early childhood settings; the signs can be gradually seen at primary school.

The Differences between Gifted and Talented

In *Nurturing Gifted and Talented Children* (Ministry of Education, 2008), one of the definitions of giftedness is that “giftedness is inherited (nature) but is also developed by external influences (nurture)” (p. 12). The words *gifted* and *talented* are often used interchangeably in education; people usually believe that children who are gifted must also be talented. However, I argue that the two traits are different and, in this article, I refer to the two different definitions provided by Gagné (2004). He states that “giftedness designates the possession and use of untrained and spontaneously expressed superior natural abilities, in at least one ability domain to a degree that places an individual at least among the top 10% of his or her age peers” (Gagné, 2004, p. 1), whereas the term talented indicates “the superior mastery of systematically developed abilities (or skills) and knowledge in at least one field of human activity to a degree that places an individual within at least the upper 10% of age peers who are or have been active in that field(s)” (Gagné, 2004, p. 1). Some children are gifted and others have special talents, but they might not be gifted *and* talented. For example, a juggler performs well in his juggling, but it does not mean that he must be gifted. Giftedness is an innate exceptional ability; it is natural, and an indication of a child’s potential for high achievement in the future (Ministry of Education, 2008), whereas talented is a skill that can be developed. However, as I have said earlier, because gifted children have the potential to learn more rapidly, they can also develop skills more quickly than other children can.



Identifying Giftedness

Identifying giftedness is one of the most important processes of supporting gifted and talented children. Identification should begin as early as possible, so that the special learning needs and interests of these children can be responded to. Once teachers have a sound understanding of what defines giftedness, they should be able to notice some of the outstanding abilities of these children in daily practice. This section is going to explore some identification tools for gifted and talented children, and some methods that early childhood teachers can use to identify these children in early childhood settings.

Just as there is no one definition of giftedness, there is no single identification tool that perfectly evaluates children who are gifted and talented. People used to think that IQ tests can find out whether a child is gifted or not, and how gifted the child is. IQ tests originated as a way to assess children's performance levels against those of their peers. There are different kinds of IQ tests available in psychological clinics, research labs or on the Web.¹ The five most common IQ tests are the:

1. Wechsler Intelligence Scale for Children (WISC)
2. Stanford-Binet Intelligence Scales
3. Wechsler Adult Intelligence Scale—Third Edition (WAIS—III)
4. Kaufman Assessment Battery for Children, Second Edition (KABC—II), and
5. Wechsler Preschool and Primary Scale of Intelligence—Third Edition (WPPSI—III).

I argue that none of these above IQ tests can accurately assess children's abilities; indeed, there is no single test suitable for all children. To some extent, it depends on the psychologists or researchers who are interpreting the IQ tests, and/or writing the test reports. It also depends on the children's performance on the day that they have the test done – the child's health and the environment can influence the results. Moreover, many IQ tests assume children come from white middle-class backgrounds, so children are expected to have some ideas and skills to complete the test (Cathcart, 2005). Children who speak another language than English, who come from a different culture and/or from low socio-economic backgrounds are therefore at a disadvantage. Nevertheless, as long as the results of the tests are treated with caution, IQ tests are still a valuable tool for identifying students who have excellent abilities, and the potential to be high achievers.

IQ testing is not commonly practised in early childhood settings in Aotearoa New Zealand; the major method of identifying gifted and talented children is teachers' observation. Having a centre policy for supporting gifted and talented children can be helpful; for example, by listing ways that teachers can identify these children. However, such policy is not required by the Ministry of Education for early childhood settings.

Early childhood teachers complete regular observations and assessments of children's learning. This is a useful identification tool for exploring giftedness. *Kei Tua o te Pae/Assessment for Learning: Early Childhood Exemplars* (Ministry of Education, 2009) is

¹ Web-based IQ tests are fashionable, but there is no evidence showing such IQ tests are reliable.



a practical resource that reflects the principles of *TeWhāriki* and sociocultural approaches to learning and teaching. The notion of *Kei Tua o tePae* is using narrative assessment to show teachers how to notice, recognise and respond to children's learning. Carr (2001) states that narrative assessment can enhance children's learning, and focuses on children's learning disposition with people, places and things. I believe that gifted children can be identified through regular assessments by their teachers. Such assessments reflect on how learning and teaching are effectively engaged between teachers, gifted and talented children and whānau.

Peer pressure may result in gifted students hiding their abilities so that they will be accepted by their peer group. This behaviour will, of course, also affect a teacher's ability to identify the gifted child. Such situations are not easily and explicitly seen in early childhood education, but one characteristic of giftedness that teachers can usually see in practice is when a child prefers adult company, and/or to play with older children. Other ways to identify the gifted child is by gathering information from whānau, and by recognising children's amazing creative products. However, one of the most important conditions required for teachers to be able to successfully support a gifted child in their setting is that they work cooperatively as a team. This is because while some teachers have positive attitudes towards those children with exceptional abilities, others will not be open to recognising the gifted and talented child. Thus, a centre-wide approach is crucial if the centre is to support the special learning needs of the gifted child. And, as stated earlier, if a child has exceptional abilities, ignoring them will not make their giftedness go away.

Conclusion

The role of early childhood teachers is always important in providing a learning environment where children's potentials can be encouraged and extended so that they flourish. To be able to cater for gifted and talented children, early childhood teachers should first have some understanding of giftedness, so that they can be aware of who these children are and why these children need additional support. An understanding of the foundation concepts of giftedness will, hopefully, create in the early childhood teacher a more positive teaching philosophy and attitude towards gifted and talented children. Gifted and talented children can be identified by a consistent approach that uses any of a variety of methods. Early identification can enhance self-esteem, motivation and curiosity, and thus develop an excitement for learning. As a result, gifted and talented children can build a sustainable foundation for their future life. Importantly, such benefits are responding to the principles of *Te Whāriki*, that children "grow up as competent and confident learners and communicators, healthy in mind, body, and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society" (Ministry of Education, 1996, p. 9).

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